

NdeI-AvrII fragment from pMDLg/p, and the 3.09-kb AvrII-EcoRI fragment from pkat1Lg/p, Finer et al., supra.

Please replace the Abstract. A mark-up of the Abstract (including its heading) is shown below and a clean version of the Abstract (including its heading) on a separate page is provided in Appendix I.

ABSTRACT OF THE DISCLOSURE

~~The invention~~This disclosure provides a lentiviral vectors containing an attachment incompetent fusogenic polypeptide and a heterologous targeting polypeptide. Also provided is a are lentiviral packaging constructs. ~~The construct contains a nucleic acid encoding trans-acting factors sufficient for lentiviral vector generation and an attachment incompetent fusogenic polypeptide. A lentiviral packaging systems having at least two nucleic acid vectors is further provided. The lentiviral packaging system consists of a first nucleic acid vector comprising a packaging construct encoding a trans-acting factor for lentiviral vector generation, and a second nucleic acid vector encoding an attachment incompetent fusogenic polypeptide, said at least two vectors together encoding trans-acting factors sufficient for lentiviral vector generation. The invention additionally provides a~~and lentiviral gene delivery systems having at least three nucleic acid vectors. The gene delivery system consists of: a first nucleic acid vector comprising a packaging construct encoding a trans-acting factor for lentiviral vector generation; a second nucleic acid vector comprising a fusogenic construct encoding an attachment incompetent fusogenic polypeptide, and a third nucleic acid vector comprising a lentiviral vector genome encoding lentiviral cis sequences sufficient for vector genome transduction, said at least three vectors together encoding trans-acting factors sufficient for lentiviral vector generation. Finally, methods of transducing a cell and methods of targeting a gene to a cell or tissue using the disclosed lentiviral vectors and systems of the ~~invention~~ are also provided.